

REMARKS

The foregoing amendments and the following remarks are responsive to the Office Action mailed March 5, 2003. Applicants respectfully request reconsideration of the present application. Claims 1, 15, and 23 are amended to put the claims in better condition for allowance and/or eliminate issues for appeal. Therefore, claims 1-31 are presented for examination.

Claims 1-31 are objected to by the Examiner, who stated that, "Applicant's arguments filed December 27, 2002 have been fully considered but they are not persuasive." Examiner rejected claims 1-2 and 5-31 under 35 U.S.C. §102(e) as being unpatentable over U.S. Patent No. 5,838,306 issued to O'Connor et al. ("O'Connor"). Examiner further rejected claims 1-4, 13, 15-16, 23, and 30-31 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,991,431 issued to Borza et al. ("Borza"). Examiner rejected claims 5-12, 14, 17-22 and 24-29 under 35 U.S.C. §103(a) as being unpatentable over Borza in view of O'Connor.

O'Connor describes a mouse for cursor control that includes a separate impression area for a fingerprint. The fingerprint impression area operates as a fingerprint recognition device and as a button providing normal switching functions. (O'Connor, col. 3, lines 8-22, col. 4, lines 3-4). The fingerprint impression area does not operate as a pointer control device to move a cursor. Rather, the ball within the mouse is used to produce cursor movement. (O'Connor, col. 3, lines 23-26).

In contrast, claim 1 recites:

1. A touchpad device configurable to be a pointer control device and a fingerprint recognition device, the touchpad device comprising:

a detection array having a detection surface, wherein the detection surface is configured to receive a fingerprint image;

a processing device to receive image data from the detection array, the processing device further to configure the touchpad device to operate as the pointer control device to move a cursor or the fingerprint

recognition device based upon parameters associated with the image data.

(Claim 1, as amended) (emphasis added). O'Connor does not teach or suggest a touchpad device configurable to be a pointer control device and a fingerprint recognition device, in which the fingerprint image is used to control cursor movement, as recited in claim 1. Furthermore, O'Connor does not teach or suggest using parameters associated with the fingerprint image to configure the use of the fingerprint image. Rather, O'Connor uses standard mouse functionality for cursor movement, and fingerprint images are solely used for recognition. Thus, O'Connor does not need or use parameters to distinguish between a fingerprint recognition function and a pointer control function.

The Examiner asserts that the limitation "using parameters associated with the fingerprint image to configure the use of the fingerprint image" is not in the claimed language. Applicants respectfully disagree. Claim 1 specifically recites "the processing device to configure the touchpad device to operate as the pointer control device to move a cursor or the fingerprint recognition device based upon parameters associated with the image data." Thus, Applicants respectfully submit that the claims indeed do include the limitation of using the parameters of the fingerprint image data to configure the touchpad device to operate as a pointer control device or a fingerprint recognition device.

Furthermore, Examiner asserts that O'Connor operates as a fingerprint device or a touchpad device. However, claim 1, as amended specifically recites the multi-function device to be "configurable to be a pointer control device and a fingerprint recognition device." As previously stated, O'Connor does not teach or suggest this limitation.

Therefore, claim 1, as amended, is not obvious over or anticipated by O'Connor. Claims 2 and 5-14 depend on claim 1, and incorporate its limitations. Therefore, for at

least the same reasons advanced above with respect to claim 1, claims 2 and 5-14 are not anticipated by or obvious over O'Connor.

Similarly, claim 15 recites:

15. A multi-function device configurable to be a pointer control device and a fingerprint recognition device, the multi-function device comprising:

means for supplying a fingerprint image to a detection surface of a detection array;

means for processing the fingerprint image supplied to the detection array, wherein the means for processing configures the multi-function device to operate as the pointer movement control device or the fingerprint recognition device based upon parameters associated with the fingerprint image.

(Claim 15). As discussed above with respect to claim 1, O'Connor does not teach or suggest a device configurable to operate as a fingerprint recognition device and a pointer control device based on certain parameters. Rather, O'Connor has separate mechanisms to implement these separate functionalities – e.g. a standard mouse ball for pointer movement control and a fingerprint sensor for fingerprint recognition. Therefore, claim 15 is not anticipated by or obvious over O'Connor. Claims 16-22 depend on claim 15 and incorporate its limitations. Therefore, for at least the same reasons advanced above with respect to claim 15, claims 16-22 are not anticipated by or obvious over O'Connor.

Claim 23 recites:

23. A method of analyzing a fingerprint image to configure the operation of a multi-function device, the multi-function device configurable to be a pointer movement control device and a fingerprint recognition device, the method comprising:

supplying a fingerprint image to a detection surface of a detection array;

analyzing select fingerprint parameters associated with the fingerprint image;

configuring the multi-function device to operate as the pointer movement control device or the fingerprint recognition device based upon the fingerprint parameters associated with the fingerprint image.

(Claim 23) (emphasis added). As discussed above with respect to claim 1, O'Connor does not teach or suggest a configurable device that can be configured to operate as a pointer movement control device and a fingerprint recognition device based on certain parameters. Rather, O'Connor has separate mechanisms to implement these separate functionalities – e.g. a standard mouse ball for pointer control and a fingerprint sensor for fingerprint recognition. Therefore, claim 23 is not anticipated by or obvious over O'Connor. Claims 24-31 depend on claim 23 and incorporate its limitations. Therefore, for at least the same reasons advanced above with respect to claim 23, claims 24-31 are not anticipated by or obvious over O'Connor.

Examiner rejected claims 3-4 under 35 U.S.C. §103(a) as being unpatentable over US Patent No. 5,838,306 of O'Connor, et al. in view of US Patent No. 5,732,148 of Keagy, et al. Claims 3-4 depend on claim 1, and incorporate its limitations.

As discussed above, O'Connor recites a mouse having an attached fingerprint sensing platform. However, the fingerprint sensing mechanism of O'Connor cannot be used for both pointer movement control and fingerprint sensing. Rather, a separate mechanism is provided for pointer movement control. Keagy discusses a sheet prism based fingerprint sensor. However, Keagy does not overcome the shortcomings of O'Connor. O'Connor and Keagy in combination do not teach or suggest the use of fingerprint parameters to either capture a fingerprint for identification or to use the fingerprint for pointer movement control. Therefore, claims 3-4 are not obvious over O'Connor in view of Keagy.

Examiner rejected claims 1-4, 13, 15-16, 23 and 30-31 under 35 U.S.C. §102(e) as being anticipated by US Patent No. 5,991,431 of Borza. Borza discusses a mouse that has coupled to it a fingerprint sensor. The fingerprint sensor is separate from the pointer control device, which is provided by a conventional mouse mechanism. (Borza, col. 6, lines 39-47). Borza does not teach or suggest a single touchpad usable for both fingerprint sensing and pointer control, the function of the touchpad configured using

parameters associated with the fingerprint. Rather, Borza uses standard mouse functionality for cursor movement, and fingerprint images are solely used for recognition. Therefore, as discussed above with respect to O'Connor, Borza uses separate devices for cursor control and fingerprint recognition. Therefore, for the same reasons described above with respect to O'Connor, the claims are not anticipated by or obvious over Borza.

Examiner rejected claims 5-12, 14, 17-22, and 24-29 under 35 U.S.C. §103(a) as being unpatentable over US patent No. 5,991,431 of Borza in view of US Patent No. 5,838,306 of O'Connor.

Both Borza and O'Connor discuss a mouse using conventional mouse techniques to provide pointer movement control and including a fingerprint sensor for biometric identification. Neither O'Connor nor Borza, alone or in combination, teach or suggest a touchpad that can use fingerprint images for pointer movement control and for identification based on certain parameters, as recited in the claims. Therefore, the claims are not obvious over Borza in view of O'Connor.


In view of the foregoing amendments and remarks, applicants respectfully submit that all pending claims are in condition for allowance. Such allowance is respectfully requested.

If the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, the Examiner is respectfully requested to contact Judith A. Szepesi at (408) 720-8598.

If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

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